The Dingley Press
Androscoggin County
Lisbon, Maine
A-506-70-F-A

Departmental
Findings of Fact and Order
Part 70 and Chapter 115
Air Emission License
Amendment #4

After review of the license amendment application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A, Section 344 and Section 590, the Department finds the following facts:

I. Registration

A. Introduction

FACILITY	The Dingley Press (Dingley)
INITIAL LICENSE NUMBER	A-506-70-A-I
LICENSE TYPE	Part 70 Minor Modification
NAICS CODES	323110
NATURE OF BUSINESS	Commercial Lithographic Printing
FACILITY LOCATION	Lisbon, Maine
INITIAL LICENSE ISSUANCE DATE	February 28, 2001
AMENDMENT ISSUANCE DATE	September 17, 2004
LICENSE EXPIRATION DATE	February 28, 2006

B. Modification Description

Dingley has proposed to install a new used heatset offset lithographic printing press (Press #8), an associated Regenerative Thermal Oxidizer (RTO), and three new catalog bindery and label printing lines.

Dingley has also requested operational flexibility which would allow them to vent emissions from the facility's presses to either RTO (existing or new).

C. Application Classification

A new emission unit at a major source is considered a major modification based on whether or not expected emission increases exceed the "Significant Emission Increase Levels" as given in Maine's Air Regulations. The emissions increases for a new source are determined by the maximum future license allowed emissions, as follows:

Pollutant	Net Change (TPY)	Sig. Level
PM	0.5	25
PM_{10}	0.5	15
SO_2	0.1	40
NO_x	12.0	40
CO	5.0	100
VOC	13.0	40

Therefore, this modification is minor for Dingley and has been processed pursuant to MEDEP Chapter 140 and the New Source Review (NSR) requirements of MEDEP Chapter 115.

II. FACILITY AND EMISSION UNIT DESCRIPTION

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Department regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in Chapter 100 of the Air Regulations. BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

B. Press #8

Press #8 is a Mitsubishi Heavy Industries Model No. GPX-1073 manufactured in 1997. The raw materials that feed Press #8 are paper, inks, fountain solution, and blanket wash.

Press #8 is equipped with two (2) dryers with a combined maximum heat input capacity of 11 MMBtu/hr firing natural gas or propane.

VOC and HAP emissions will be controlled by a new Regenerative Thermal Oxidizer (RTO #2) manufactured by TANN Corporation Model TR 2094. Dingley has also requested the operational flexibility to control Press #8 with the existing Wolverine RTO (RTO #1). This request is further described in Section II.D below. RTO #2 will be operated at a temperature greater than 1300˚F to ensure 97.5% destruction of VOCs and HAPs. To demonstrate compliance with the temperature limit, Dingley will install thermocouples and computer interlocks which shut down all presses venting to RTO #2 if the temperature falls below 1300˚F. The temperature shall also be verified and recorded manually once per day.

A summary of the BACT analysis for Press #8 is the following:

1. Emissions from Press #8 shall vent to an RTO (either #1 or #2) capable of 97.5% destruction efficiency based on 1000 ppmv or higher VOC inlet loading. If the inlet VOC content is less than 1000 ppmv, the VOC outlet shall not exceed 25 ppmv at actual stack conditions.
2. Dingley shall fire propane or natural gas in the dryers for Press #8 and RTO #2.
3. Visible emissions from RTO#2 shall not exceed 10% opacity on a six (6) minute block average basis.

Streamlining

Opacity

MEDEP Chapter 101, Section 2(B)(1)(f) and BACT requirements are applicable. The BACT opacity limit is more stringent. Therefore, only the more stringent BACT opacity limit is included in this license.

Periodic Monitoring

Periodic monitoring for Press #8 and the associated dryers shall consist of record keeping which includes records of ink and solvent usage and fuel use through purchase receipts indicating amounts (scf or gallons).

Periodic monitoring for RTO #2 shall consist of monitoring of temperature recorded daily.

Based on best management practices and the type of fuel for which this equipment was designed it is unlikely that it will exceed the emission limits for PM/PM_{10}, SO_2, NO_x, CO and VOC. Therefore, periodic monitoring by the source for these pollutants is not required. However, neither the EPA nor the State is precluded from requesting Dingley to perform testing and may take enforcement action for any violations discovered.

C. New Bindery and Inkjet Printing

Dingley has proposed the installation of three new bindery and inkjet printing lines. This equipment will support Press #8 operations. The inkjet printers will be used to print addresses and other information on the covers of the finished publications.

BACT for this equipment is determined to be the use of solvent recovery systems for the control of VOC and HAP emissions.

D. Operational Flexability

RTO #2 will have a total capacity of 20,300 scf/min. Press #8 will have an exhaust flow rate between 7,000 and 8,000 scf/min. Dingley proposes to use the 12,000 scf/min of excess capacity to provide redundant control for the other existing presses. Additionally, Dingley has requested that Press #8 be permitted to exhaust to RTO #1 in combination with other presses up to RTO #1's maximum capacity of 25,000 scf/min.

Modifications to Dingley's press exhaust ductwork will be completed so that emissions from all presses can be controlled by either RTO #1 or RTO #2. Each press will be assigned a flow rate based on maximum operation. When both RTOs are operating, there is sufficient capacity to control all presses at maximum production. In the event that one of the RTOs go down, each RTO will have programmed interlocks which will prohibit presses with a combined total flow

rate greater than the RTO design maximum to operate. The interlocks will shut down presses based on a preprogrammed priority system. Dingley shall maintain records which demonstrate which presses are in operation for all periods of time when only one RTO is operating.

E. Facility Emissions

Total Licensed Annual Emission for the Facility
Tons/year
(used to calculate the annual license fee)

	PM	**PM_{10}**	**SO_2**	**NO_x**	**CO**	**VOC**	**Single HAP**	**Total HAP**
Catalytic Incinerator	0.4	0.4	0.1	9.4	2.4	-	-	-
RTO #1	1.3	1.3	1.3	13.6	17.1	-	-	-
RTO #2	0.5	0.5	0.1	12.3	5.1	-	-	-
Facility	-	-	-	-	-	94.4	9.9	24.9
Total	**2.2**	**2.2**	**1.5**	**35.3**	**24.6**	**94.4**	**9.9**	**24.9**

III. AIR QUALITY ANALYSIS

According to Chapter 140 of the Department's regulations, an existing Part 70 source shall be exempt from an impact analysis with respect to a regulated pollutant whose allowable emissions do not exceed the following:

Pollutant	Tons/year
PM	25
PM_{10}	25
SO_2	50
NO_X	100
CO	250

Based on facility license allowed emissions, Dingley is below the emissions level required for modeling and monitoring.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that emissions from this sources:

- will receive Best Practical Treatment;
- will not violate applicable emissions standards
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants this Part 70 Minor Modification A-506-70-F-A subject to the Conditions found in Air Emission License A-506-70-A-I, in the following amendments: A-506-70-B-A, A-506-70-C-M, A-506-70-D-A, and in addition to the following conditions:

The following shall replace Condition (24)(A) of Air Emission Licenses A-506-70-A-I and A-506-70-B-A:

A. Dingley is licensed to operate Presses #3, #4, #5, #6, #7, and #8 and the associated dryers. [MEDEP Chapter 140, BPT]

The following shall replace Condition (24)(H) of Air Emission Licenses A-506-70-A-I and A-506-70-B-A:

H. Emissions from the dryers on Presses #3, #5, #6, #7, and #8 shall be vented through either RTO #1 or RTO #2. [MEDEP Chapter 140, BPT]

The following shall replace Conditions (24)(J) and (24)(K) of Air Emission Licenses A-506-70-A-I, A-506-70-B-A, and A-506-70-D-A:

J. Emissions from Presses #3, #5, #6, #7, and #8 shall vent to a thermal oxidizer (either RTO #1 or RTO #2) that will achieve no less than 97.5% destruction of VOC from the dryers based on 1000 ppmv or higher VOC inlet measured as propane at actual air stream conditions. If the inlet VOC content is below 1000 ppmv, the VOC outlet shall not exceed 25 ppmv at actual stack conditions. Dingley shall demonstrate compliance with the destruction efficiency for RTO #2 by stack testing within 30 days of startup and once every two years thereafter. Dingley shall demonstrate compliance with the destruction efficiency for RTO #1 by stack testing by September 26, 2005 and once every two years thereafter. After two sets of successful compliance demonstrations, Dingley may apply to reduce the frequency of stack testing required. [MEDEP Chapter 140, BPT]

K. RTO #1 and RTO #2 shall each maintain a temperature of at least 1300^{o}F or the temperature which successful stack testing demonstrates a destruction efficiency of at least 97.5%. Compliance shall be demonstrated by thermocouples maintained in the incinerator chambers. The thermal oxidizer control systems shall be equipped with interlocks which shut down the presses if the temperature drops below 1300^{o}F. The temperature shall be recorded daily by operators. [MEDEP Chapter 140, BPT]

The following shall replace Condition (24)(L) and (24)(M) of Air Emission License A-506-70-A-I and A-506-70-B-A:

L. Compliance with particulate matter limits for the catalytic incinerator, RTO #1, and RTO #2 are on a 1-hour block average basis and shall be demonstrated in accordance with 40 CFR Part 60, Appendix A, Method 5 upon request by the Department. [MEDEP Chapter 140, BPT]

M. Visible emissions from the presses, RTO #1, RTO #2, and the catalytic incinerator shall each not exceed 10% opacity on a six minute block average basis. [MEDEP Chapter 140, BPT]

The following shall replace Condition (26) of Air Emission Licenses A-506-70-A-I, A-506-70-B-A, and A-506-70-D-A:

(26) Overall VOC emissions from the facility shall not exceed 94.4 ton/year based on a 12-month rolling total. Dingley shall maintain monthly records to demonstrate compliance with this limit. [MEDEP Chapter 140, BPT]

The following are New Conditions:

(44) Emissions from RTO #2 shall not exceed the following:

Pollutant	lb/MMBtu	Origin and Authority	Enforceability
PM	0.12	MEDEP, Chapter 103, Section 2(B)(1)(a)	**Federally Enforceable**

Pollutant	lb/hr	Origin and Authority	Enforceability
PM	0.1	MEDEP Chapter 140, BPT	**Federally Enforceable**
PM_{10}	0.1	MEDEP Chapter 140, BPT	**Federally Enforceable**
SO_2	0.01	MEDEP Chapter 140, BPT	**Federally Enforceable**
NO_X	2.8	MEDEP Chapter 140, BPT	**Federally Enforceable**
CO	1.2	MEDEP Chapter 140, BPT	**Federally Enforceable**

(45) Dingley shall not operate more presses at any one time than the RTO(s) in operation can accommodate by design. The RTO system shall include interlocks that will either shut down presses or not allow start up of more presses that the operating RTO(s) can accommodate by design. Dingley shall maintain records which demonstrate which presses are in operation for all periods of time when only one RTO is in operation. [MEDEP Chapter 140, BPT]

(46) Dingley shall operate and maintain solvent recovery systems on the new bindery and inkjet printing lines. [MEDEP Chapter 140, BPT]

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2004.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:_____
DAWN R. GALLAGHER, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-506-70-A-I.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 6/25/04
Date of application acceptance: 6/29/04

Date filed with the Board of Environmental Protection: _____

This Order prepared by Lynn Ross, Bureau of Air Quality.